

## SCIENCE AND INVENTION.

## Work of the World's Busy Brains in Discovering, Inventing and Creating.

The new map of Alaska which has just been completed by the Geological Survey shows that the country has lost some 4,000 square miles in the past five or six years. The preceding map gave the area at 590,000 square miles, where the new map sets it down as 586,000. A new map was rendered necessary by the rapid development of the Territory and the building up of considerable towns and cities which do not appear upon the map issued only five or six years ago. Among these are Fairbanks, which had no existence in 1900, but now claims between 7,000 and 8,000 population.

The Engineering News states that the small motor cars are coming into rapid use on the European railroads, but their development in this country is much slower, though the Union Pacific Railway has a number of gasoline cars built, and so far as tried they are giving excellent satisfaction. They can easily make 60 miles an hour, but the high speed is not so much of an object as lightness of weight, easy riding, easy handling and reliability. In Europe they are using steam cars more than oil or gasoline motors, and are getting very good service out of them.

## Work of the Patent Office.

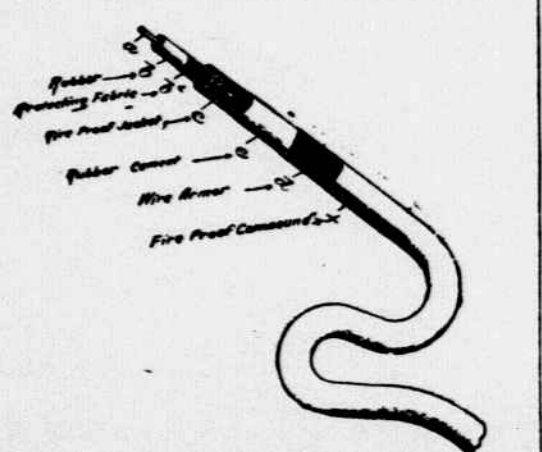
For the week ended Jan. 9, 1906, the Patent Office issued 650 patents, nine designs, 160 trade-marks, 29 labels, nine prints and two re-issues; making a total of 850, of which 568 patents and 186 trade-marks, etc., went to citizens of the United States and 91 patents and three trade-marks to citizens of foreign countries.

## Stove Polish.

Anton N. Braun, Arad, Austria-Hungary, has patented a process for the production of stove polish, which consists in dissolving gum-arabic in distilled water, adding four parts turpentine and mixing 30 parts of the product with 10 parts pulverized alloy of aluminum and tin. The remainder of the solution is then added.

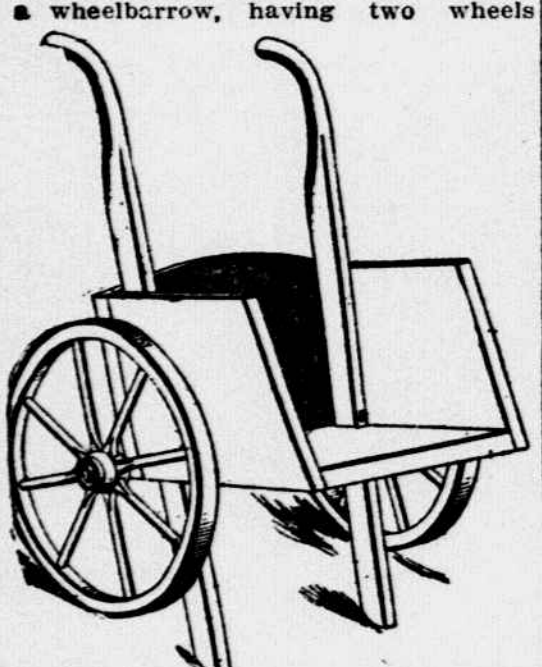
## Fireproof Wire.

Amanda M. Lougee, Boston, Mass., has obtained three patents for fireproof wire, which comprise a permanently



flexible conductor having around the wire first an asbestos jacket, next a coating of cement, then a jacket of wire and finally waterproof and fireproof insulation.

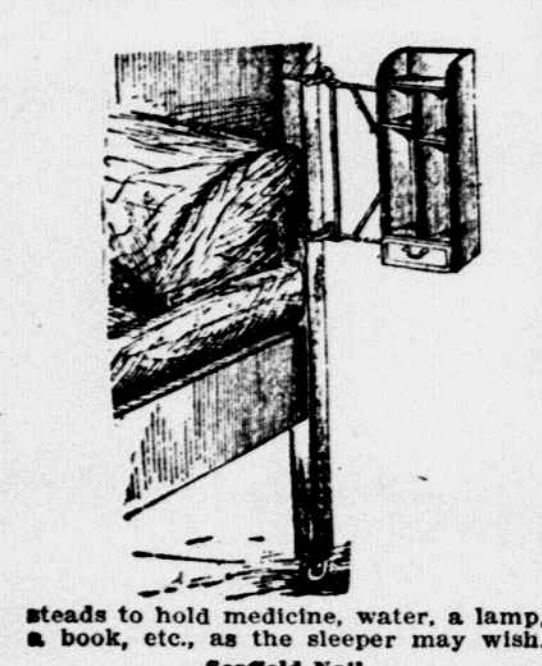
William Tasker, Biloxi, Miss., has received a patent for a peculiar form of a wheelbarrow, having two wheels



supporting a body with bars extending in front to support the body while being loaded.

Antitoxin for Fatigue. Wolfgang Weichardt, Berlin, Germany, has patented a process for obtaining a substance to neutralize and render inoperative the toxin arising in the human body in cases of fatigue. His process consists in producing in animals intense fatigue, obtaining toxin from the same, removing the constituent parts of toxin, injecting the said toxin into other animals and so on. The result is a concentrated serum which has the property of neutralizing or destroying the fatigue toxin.

Bedstead Attachment. William A. Wright, Cumming, Ga., has patented an attachment for bed-



Charles E. Springer, Chicago, Ill., has patented a scaffold nail having a collar opened at one side and so arranged that it can be removed when it is necessary to insert a tool to draw the nail.

Weed Puller. Paul M. Thayer, Plymouth, Ind., has patented a weed puller consisting of a handle and a series of sharp-edged

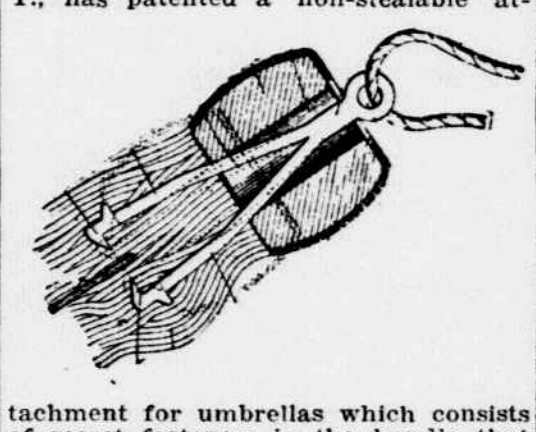


blades so arranged that it is such a way that they will come together when pressed into the ground.

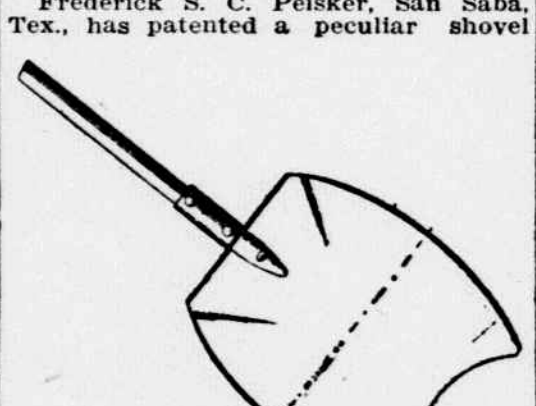


Frederick A. Wuest, Lawrenceburg, Ind., has patented a saw with an adjustable handle and cutting and ripping teeth on the two sides. The handle can be readily adjusted to use either edge.

Umbrella Attachment. Margaret A. Brunner, New York, N. Y., has patented a non-stealable attachment for umbrellas, which consists of secret fasteners in the handle that are operated by streamers.

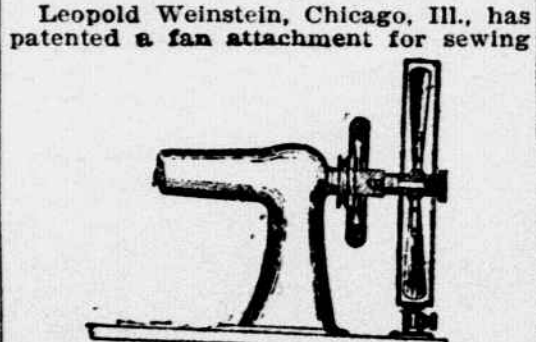


Shovel. Frederick S. C. Peisker, San Saba, Tex., has patented a peculiar shovel



having a dished blade with the edge of the shovel cut away in crescent shape.

Leopold Weinstein, Chicago, Ill., has patented a fan attachment for sewing



machines by which the worker is kept cool and the annoying flies driven off.

Information Bureau. Editor National Tribune: Will you please publish for the information of others as well as myself a good recipe for tanning skins?—N. Beach, Hunters, Cal.

Fur Skins (any kind), to Tan.—After cutting off the useless parts and softening the skins by soaking in warm water, take away the fatty part from the inside, double the skin in tepid water for two hours. Mix equal parts of borax, saltpeter and Glauber salts (sulphate of soda) in the proportion of about one-third ounce of each for every skin, with water sufficient to make a thin paste. Spread with a brush over the inside of the skin, applying more on the thicker parts than on the thinner. Double the skin together, flesh side inward, and place in a cool place. After standing 24 hours, wash the skin clean, and apply the following mixture in the same manner as before: One ounce sal soda, one-third ounce borax, two ounces hard white soap, melted slowly together without being allowed to boil; fold together again and put in a warm place 24 hours. After this dissolve three ounces of alum, seven ounces of salt, one and one-half ounces saltpeter, in sufficient rain water to saturate the skin; when cool enough not to scald the hands soak the skin in it for 12 hours; wring out and hang it up to dry. When dry, repeat the soaking and drying two or three times till the skin is sufficiently soft. Lastly, smooth the inside with fine sandpaper and pumice stone.

Skins to Tan with Hair On.—1. Stretch the skin tightly and smoothly upon a board, half side down, and tack it by the edges to its place. Scrape off the flesh and fat with a blunt knife, and work in chalk freely, with plenty of hard rubbing. When the chalk begins to powder and fall off repeatedly of powdered alum, rub up closely and keep it in a dry place for a few days. By this means it will be made pliable and will retain the hair.

Coffee. The stimulating alkaloid of our beverages, forms 3 or 4 per cent of our tea and about 1 1/2 per cent of ordinary coffee. Some years ago G. Bertrand discovered in Madagascar a species of coffee, Coffea humblotiana, that is free from caffeine, but contains the bitter principle cafamarine. Other found since, and very recently three new species have been proven to be absolutely free from the alkaloid, though having some bitter substance. These coffees are all confined to Madagascar, experiment showing, however, that their peculiarity is not due to soil or climate.

The many species of yeast hitherto known are all useless in tropical countries, as they are destroyed by a very moderate heat. A remarkable new ferment has been obtained by Johnson and Hare from eucalyptus leaves, and this has proven so resistant to temperature that it converts sugar into alcohol at 195 degrees Fahrenheit, and has even withstood for a short time a temperature of 170 degrees. A further advantage is that foreign micro-organisms can be destroyed by heat without injuring the yeast. The name Saccharomyces thermophilus has been given to the new yeast, and it is regarded as so valuable that it has been protected by 15 patents in different parts of the world. The cells are more oval and far smaller than those of ordinary yeast.

The "recognition sense" of ants is found by H. Pleron to be a recognition of odor by the antennae. The usual hostilities of ants ceased when those of the stranger species or community were given their own odor, while after losing their antennae they fought friend and foe alike.

In a novel device for preventing the racing of propellers, a pendulum gravitates with the vessel's motion. The



OFFICERS OF THE ARMY AND NAVY UNION. Center, National Commander, J. Edwin Browne. Top, left to right, Senior Vice National Commander Edward Strobel, Adj. Gen. John Schumacher, Junior Vice National Commander Edward V. Auger. Bottom, left to right, Judge Advocate Gen. J. D. Clute, Inspector Gen. S. E. Adams, Chaplain Chidwick.

## ARMY AND NAVY UNION.

Its Organization 18 Years Ago, and Its Growth to the Present Time.

One Sunday afternoon 18 years ago about a half dozen Regular soldiers assembled in a grocery store on Jefferson Avenue near Calhoun, in Cincinnati, and formed a soldier society. From that little meeting has grown a strong and rapidly-growing organization—the Army and Navy Union, U. S. A.—broad in its scope, wide in its principles and strong in its perpetuity. The parent or pioneer Garrison which was given birth in the Cincinnati grocery store, with less than 10 members, dates its existence from January, 1888, hence it will soon celebrate its 18th birthday. It is known as Gen. George Washington Garrison, No. 1. Its recognized founder was Peter Lackey, who is still able to answer roll-call. Originally the National Corps was known as the Regular Army and Navy Union, and only honorably-discharged Regular soldiers or sailors were eligible to membership.

This was the name until after the Spanish-American War, when the Convention met in Washington, D. C., in 1899, and the name was changed to the Regular and Volunteer Army and Navy Union. It was again changed at Buffalo, N. Y., in 1901, to the Army and Navy Union, U. S. A., which sounded more euphonious than the long and cumbersome name of Regular and Volunteer Army and Navy Union.

In preamble adopted at the first regular meeting of the first Garrison it was recited that "the Army and Navy of the United States of America are the principal guardians and sources of support of civilization in the protection of its citizens, their lives and liberties, their honor and integrity, as well as the maintenance of the frontiers against the encroachment of foreign powers, and the subduing of our most harassing and barbarous enemies." It was the duty of the soldier to be a citizen, and to be a citizen to be a soldier. The Army and Navy Union recognizes no section, no State, no party and no creed. It is a fraternal organization, and in social fellowship and contentment "to the last ditch" for soldiers' rights.

The first meeting of the National Corps, as the supreme body is termed, was held at Brooklyn, N. Y., in August, 1899, at which National Commander Louis Renkert, of Gen. George Washington Garrison of Cincinnati, O., presided. Its last National Encampment was at pretty and historical Newburgh-on-the-Hudson.

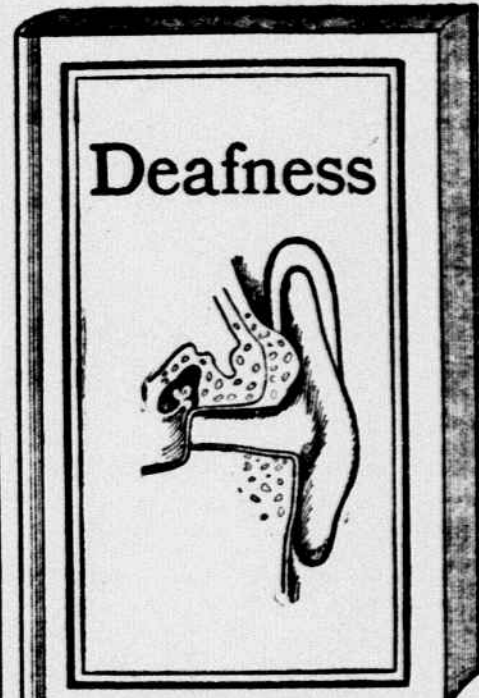
Corps is one of its strongest features—the strongest link in its chain of objects. It aims to secure from Congress and other legislative bodies the best laws for the benefit of the service and all others. The doors were opened to the honorably-discharged volunteers of the Spanish War, and to all honorably-discharged soldiers, sailors or marines of the United States. Another of its purposes is to secure employment for those who have left the ranks and returned to civil pursuits.

It has an Endowment Association, which was effected at the 10th Convention at Buffalo, N. Y., in October, 1901. The present officers of the pioneer Garrison of Washington—are: Geo. L. Kuhlman, Commander; Jacob Heller, Senior Vice Commander; Jos. Roubin, Junior Vice Commander; Geo. H. Post, Adjutant; Louis Renkert, Paymaster; Fred Otto, Quartermaster; Ernest Fenner, Officer of the Day; Gustav Franks, Officer of the Guard; John Conway, Officer of the Watch; Chas. F. Herzog, Chaplain. D. C. Swinebourne, Henry Kuck, Gustav Frank, Executive Council.

On Saturday, Dec. 16, last, the cornerstone of Memorial Hall corner of Grant and Elm streets, Cincinnati, was laid with proper ceremonies. This hall is designed for all patriotic societies of Cincinnati. The cornerstone contains the roster and badges of the G. A. R. A. and N. U. S. W. V., and other patriotic societies.

## The "EAR-BOOK" For Deaf People

By George H. Wilson



Deafness

SUPPOSE you knew a man who had been deaf for twenty years? Suppose you met him today, and found he could hear every whisper you spoke to him? Suppose you enquired about him, and found that he was one of the most reliable, and responsible, citizens of Louisville, whose word could be absolutely trusted.



Richardson, the Rebel Spy.

Comrade S. A. Walker, Co. G, 15th Ohio, Gallon, O., sends The National Tribune a war-time photograph of Richardson, the rebel spy, who was executed at Frederick City, Md., and about whom so much has been written. Walker says the photograph was given to him in 1865 at Chattanooga by L. L. Roberts, a veteran of Co. G, 18th Ohio. He said his father was with the execution. He believes it to be genuine," adds Comrade Walker, "as no controversy has arisen."

Editor National Tribune: I see in your issue of Dec. 28, 1905, a statement from H. C. Weston, Co. D, 1st Mass. Cav., claiming that deserters were occasionally branded as a punishment. I also verify his statement, as I was a witness of possibly the same, although we differ as to the time. We were encamped near Belle Plain Landing at the time, and my diary says on April 8, 1863, two men were drummed out of camp for attempted desertion. The regiment was drawn up in the form of a hollow square, with a cavalry force in the center; the deserters marched around, with the band playing Rouse's March, one side of their heads shaved, and the other side with the letter "D" branded on them. They were then driven out of camp. I have a distinct recollection of the occurrence.—E. F. Fifth Cos. M. and A., 2d N. Y. (Harris Light) Cav., East Williston, N. Y.

Referring to the alleged branding of deserters in the war of the rebellion, Comrade Carlton Feich, Co. C, 3d N. Y. State, says he finds in a diary he kept in 1863, that on Nov. 17 "We had a division parade at 2 o'clock, when one man of the 2d N. Y. was branded with the letter 'D' on his hip, and another man from the 49th N. Y. was also branded with the letter 'D' on

his shoulder." On Nov. 23 of the same year I read, "Had division parade at 2 o'clock, when one man of the 2d N. Y. and one of the 47th N. Y. had their 'D' branded in the palms of their right hands." There was nothing said about them being drummed out of camp, or their heads, or any part of them, being shaved. I distinctly remember the first two, as I was in that parade and saw the performance. But the last two I should not have remembered had it not been for my diary."

FROM THE PHILIPPINES. Editor National Tribune: I am somewhat disappointed at not seeing any more letters from our young soldiers in the "soldier's friend"—The National Tribune. I believe, however, those boys that served in the Philippines are getting the paper, or at least they should, for they miss a weekly literary treat if they don't. For myself, I can't do without it. I have given it as long as I can spare the dollar.

I was glad to see Comrade Mackey's contribution this week. I am sure I have not seen a better physical endurance to all the companies that took part. On that expedition were Cos. A, D, K, M and part of E. But I will trust Mackey to tell the story in these columns. Let us also hear of the comrades of the comrades in upholding Old Glory across the Pacific.

For myself, I was in the following engagements over there: Calabangas, Ragay, Libmanan River, Lupat, two actions in the Ragay Hills, two near Ragay and St. Nina on the Bicol. I saw the surrender of Arcejoles at Nueva Caceres March 31, 1901.—Robert F. Long, Co. F, 45th U. S., Eaton, Ind.

The U. S. S. Commodore Jones. Comrade R. A. J. Hornsby, Williamsport, Md., says he enjoys reading the soldiers' reminiscences of The National Tribune. He was a sailor in the civil war, and was a member of the crew of the U. S. S. Commodore Jones, and was on board when that vessel was blown up on the James River above City Point in 1864, by a torpedo. Comrade Hornsby says the torpedo was not intended for the ship but was on board for a monitor. He would like to hear from some of the crew who were killed by the explosion.

He Served Honorably as a Teamster. Samuel A. Clemens writes from Bridgeport, O., and says: "While I was not a soldier, I was serving in the employ of Uncle Sam. I offered my services when the first call for 75,000 men was made, but the quota was filled, and I contented myself with hiring as teamster under Capt. H. C. Ransom. I tried to do my duty faithfully, and was promoted from \$20 to \$30 per month. I like The National Tribune, and can not see how any old soldier can get along without it."

Dr. Shoop's Restorative. It is of but little use to try to doctor the kidneys themselves. Such treatment is wrong. For the kidneys are not usually to blame for their weaknesses or irregularities. They have no power—no self-control. They are operated and actuated by a tiny strand of nerve which is largely responsible for their condition. If the kidney nerve is strong and healthy the kidneys are strong and healthy. If the kidney nerve goes wrong, you know by the inevitable result—kidney trouble.

This tender nerve is only one of a great system of nerves. This system controls not only the kidneys, but the heart, and the liver, and the stomach. For simplicity's sake Dr. Shoop has called this great nervous system the "Inside Nerves." They are not the nerves of feeling—not the nerves that enable you to walk, to talk, to act, to think. They are the master nerves, and every vital organ is their slave. The common name for these nerves is the "sympathetic nerves"—because each set is in such close sympathy with the others, that weakness anywhere usually results in weakness everywhere.

The one remedy which aims to treat not the kidneys themselves, but the nerves which are to blame, is known by physicians and druggists everywhere as Dr. Shoop's Restorative (Tablets or Liquid). This remedy is not a symptom remedy—it is strictly a cause remedy. While it usually brings speedy relief, its effects are long lasting.

If you would like to read an interesting book on inside nerve disease, write Dr. Shoop. With the book he will also send the "Health Token"—an intended passport to good health. Both the book and the "Health Token" are free.

For the free book and "Health Token" you must address Dr. Shoop, Book 3 on the Kidneys, Book 4 for Women, Book 5 for Men, Book 6 for Rheumatism.

Dr. Shoop's Restorative Tablets—give full three weeks' treatment. Each form—liquid or tablet—has equal merit. Druggists everywhere.

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## Old Soldiers

Of the Union Army, honorably discharged, War of 1861-65, and ex-Spanish War soldiers, or their Widows are entitled to 160 acres of Government land in Oklahoma, and can have the same on the same by Federal Homestead Act. Land is now obtainable in the FAMED CANADIAN VALLEY in Day, Woodward and Beaver Counties. Abundant crops of corn, cotton, wheat, oats, rye, barley and potatoes. Write A. W. GIFFIN, Gov't Land Locator, ROLL, DAY CO., OKLAHOMA.

## PATENTS—PENSIONS

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